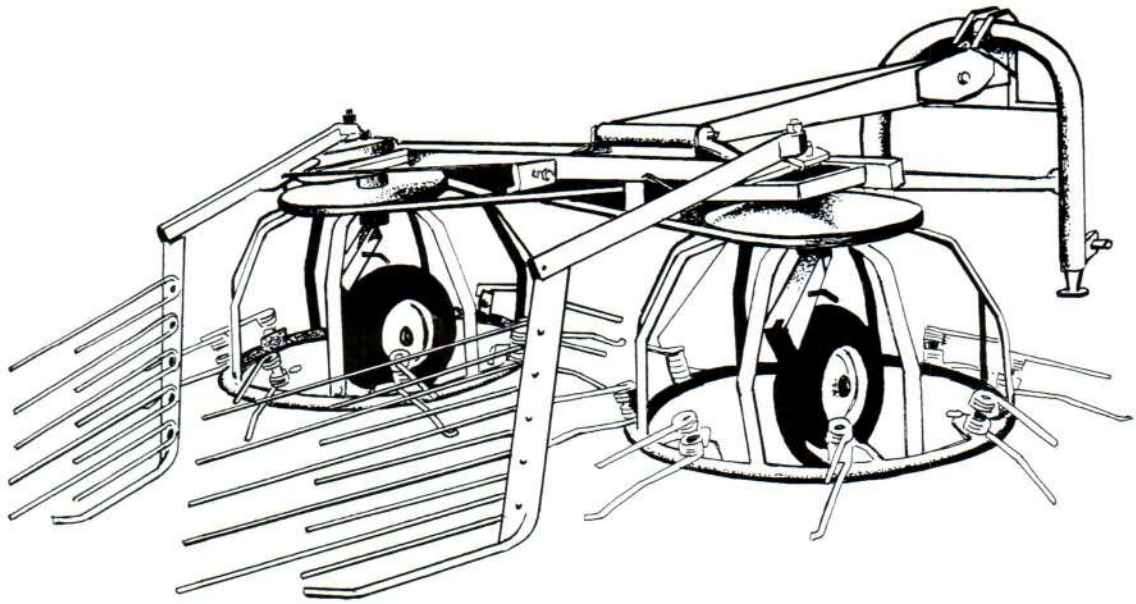
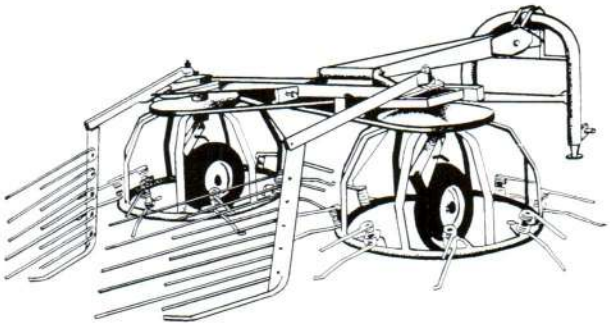
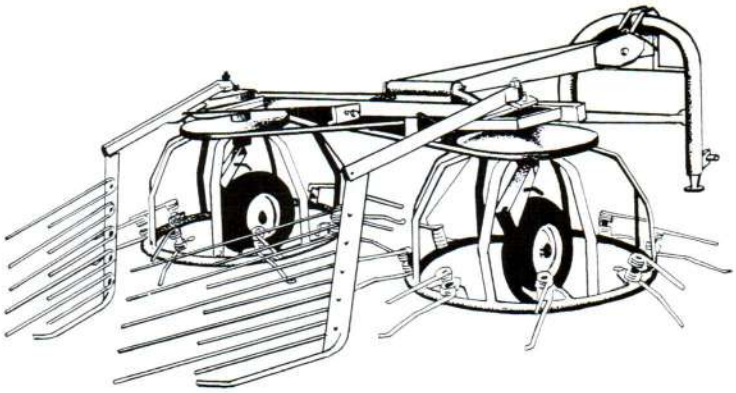
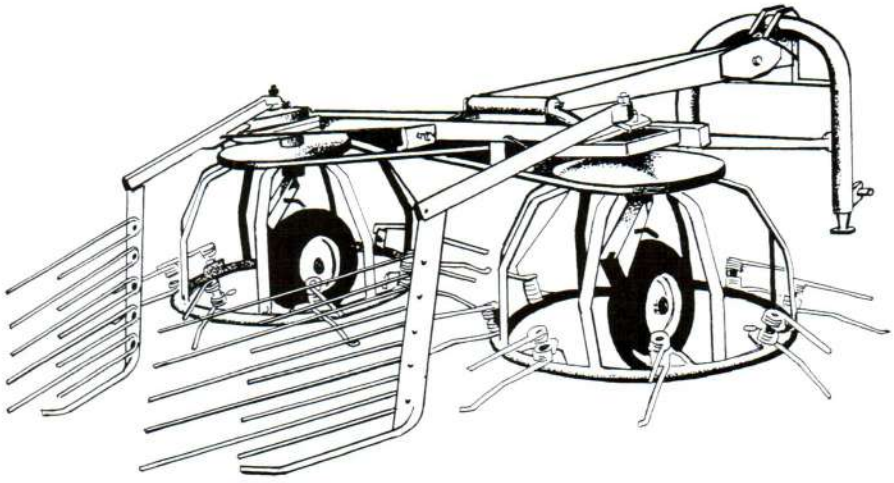
T.R.C.D.
TEDDER RAKE

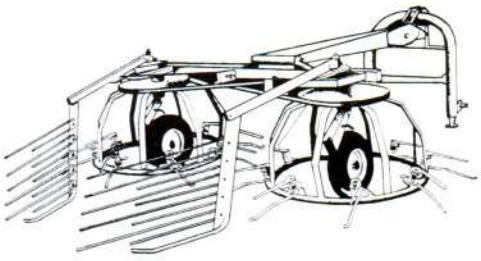








T.R.C.D.
TEDDER RAKE



REESE ENGINEERING LTD UFO

TEDDER/RAKE

Model T.R.C.D.

Operating & Maintenance Instructions

introduction

The UFO Tedder-Rake model TRCD is a 3 point linkage mounted machine with the ability to trail when in operation but become rigid when lifted for transport.

For road transport provision is made to simply reduce the width to 2.5 m.

Raking and tedding are performed by passing the mown crop between the rotors. Crop guides are adjustable to ensure an even windrow when raking and to control the spread of tedded crop when operating adjacent to fence lines.

Gears and castings have been completely eliminated by a single vee belt drive to produce a quiet trouble free machine.

technical specifications

Working Width Raking Tedding	3.35 m (11 ft)
Transport Width Trailed or Mounted	2.5 m (8'3")
Working Speed	6-16 kph
Power Requirements	From 30 HP
Rotor Revolutions	215 RPM @ 540 PTO
Tines	• 8 per rotor • Quick and easy angle adjustment • High quality local manufacture • Fixed operating position to allow gentle crop handling
Wheels	• 450 mm dia. x 100 mm wide • durable solid rubber
Drive	Simple single V belt
Mounting	3 pt linkage with automatic trailing feature in operation.

servicing

The following schedule is recommended for average farm situations. For larger holdings or under contracting conditions the annual servicing may need to be carried out more frequently.

REFER TO LUBRICATION POINT CHART

PRIOR TO INITIAL USE:

1. **Grease All Points:**

Hitch frame roller	1 pt
Hitch frame pivot boss	1 pt
Hitch beam front pivot	1 pt
Tilt adjustment trunion and screw block	2 pts
Belt adjustment crank pivot	1 pt
PTO input shaft housing	1 pt
PTO shaft UV joints	2 pts
PTO shaft cover bearings	2 pts

2. **Grease**
   LH lower hitch plate
   Hitch frame roller track
   PTO shaft sliding member

3. **Oil**
   Crop divider attachment pivot
   Crop guide attachment bracket & pivot
   Belt tensioner adjustment
   Wheel height adjustment handles

4. **Spray (CRC or WD40)**
   Tine carrier spindles and nylon pivot bushes

CAUTION

All hydraulically elevated equipment must be supported or lowered to the ground when servicing to prevent accidental lowering which may result in personal injury.

DANGER

ROTATING PARTS

This machine is PTO driven. Ensure that machine has stopped and PTO is secured to prevent inadvertant engagements before making adjustments or carrying out maintenance.

DAILY

1. **Grease**

PTO Input shaft housing	1 pt
PTO universal joints	2 pts

2. Check belt for tension — see maintenance.

3. Check tines for tightness and breakages.

WEEKLY

1. Perform all operations listed in "Prior to Initial Use" servicing.

2. Check all nuts and adjustments for tightness.

3. Check tines for breakages.

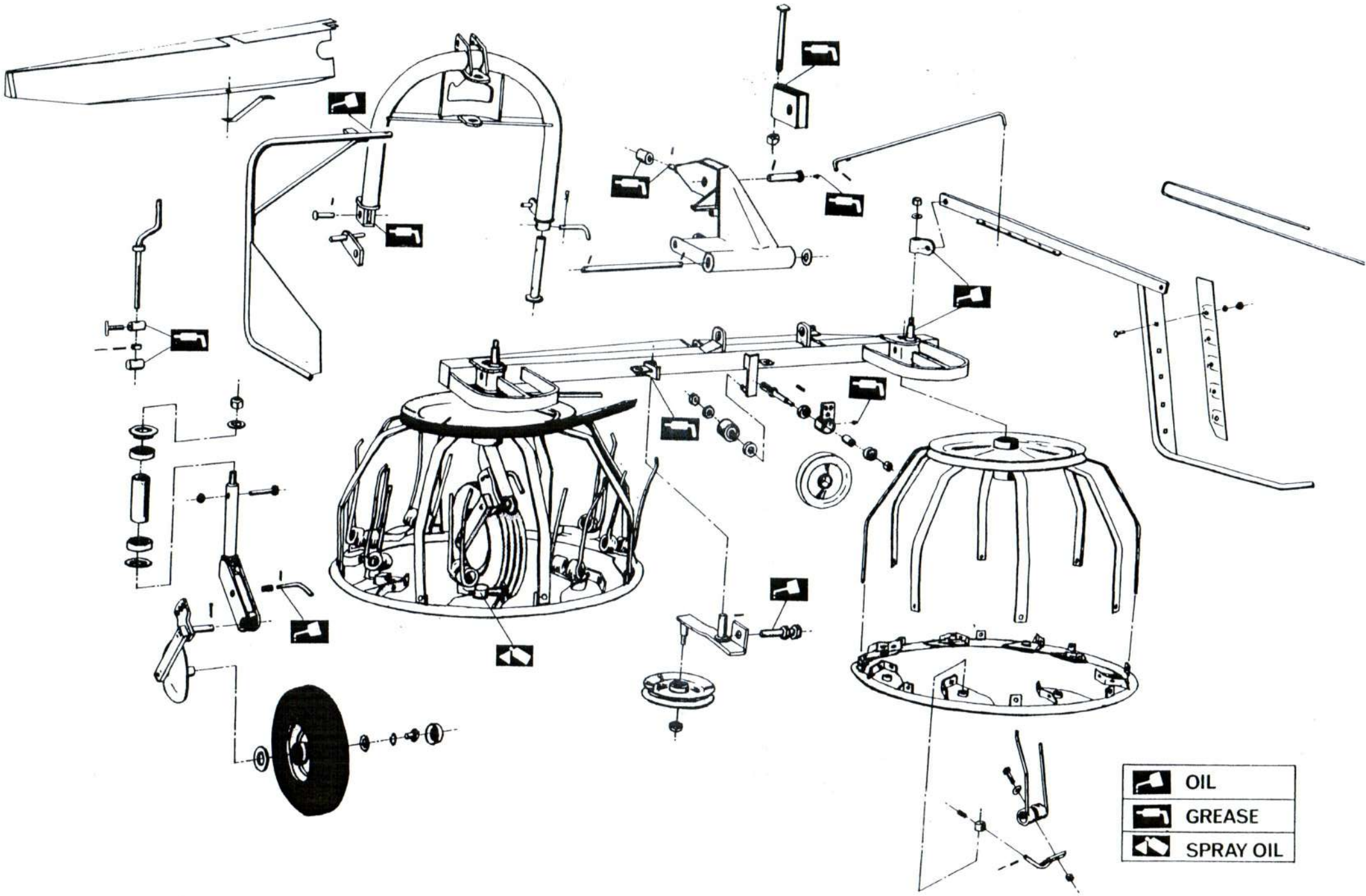
ANNUALLY

1. Perform all operations listed in "Prior to Initial Use" servicing.

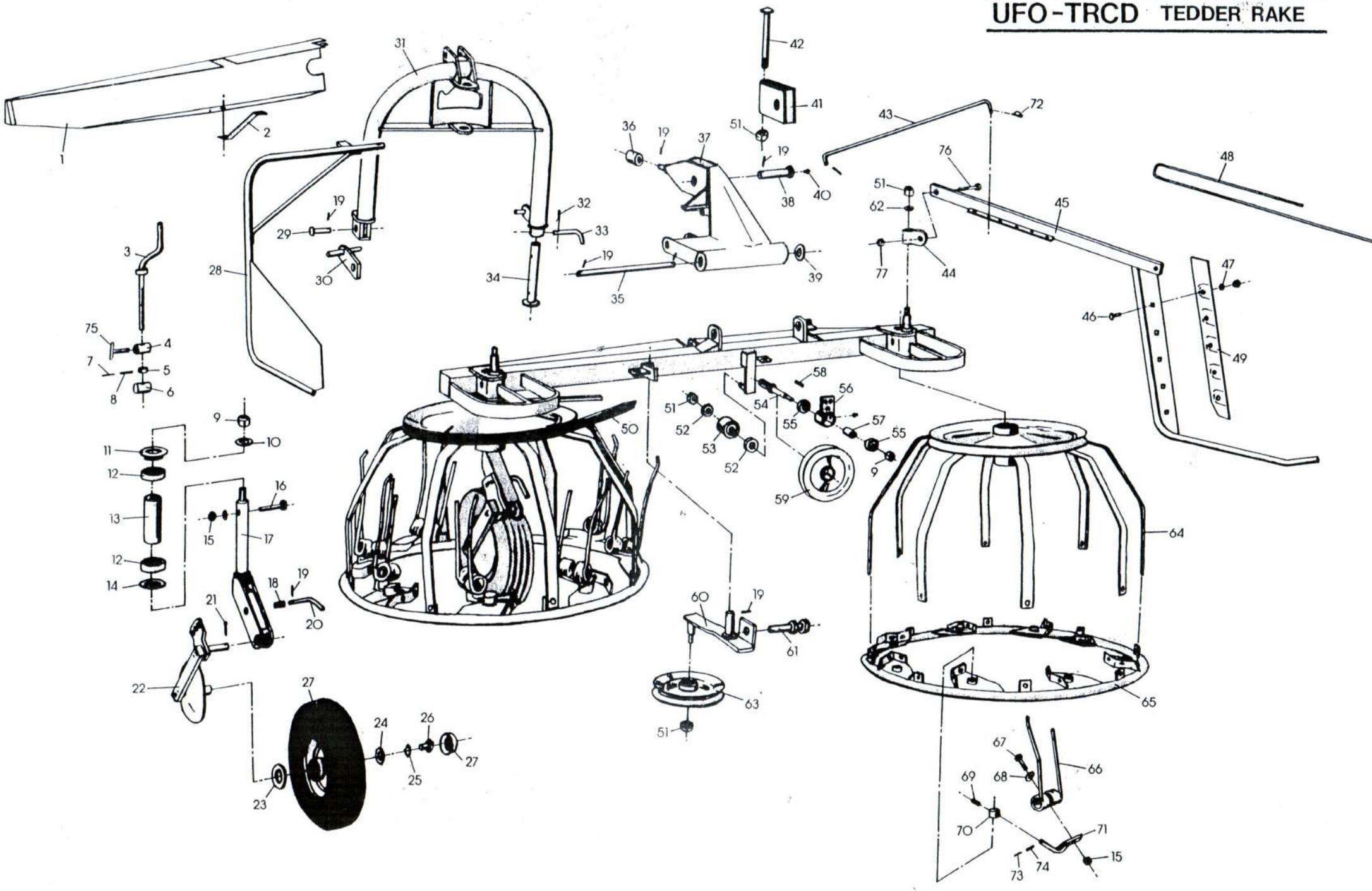
2. Check all rotating components for smooth free rotation.

3. Check nuts and adjustments for tightness.

4. Check vee belts for obvious damage or wear.


OIL
GREASE
SPRAY OIL

UFO-TRCD TEDDER RAKE



Item	Part No.	Description
1	10413	Front cover assembly
2	10414	Front cover stay
3	10026	Tilt adjustment crank
4	10024	Trunion
5	10025	Collar
6	10035	Screw block
7	9251	Tension pin M5 x 40 Inner
8	9256	Tension pin M8 x 40 Outer
9	8	Nyloc nut 1" UNF
10	39	Washer 25ID x 10 mm thick
11	38	Top bearing spacer
12	35	Rotor bearing 6210 2RS
13	10436	Rotor bearing spacer tube
14	52	Bottom spindle washer
15	14A	Nyloc nut ½" UNF
	40	Flat washer ½"
16	14	Spindle shear bolt 3½" x ½" UNF H.T.
17	10437	Rotor spindle assembly TRCD
18	20344	Spring — wheel height adjustment
19	9251	Tension pin M6 x 40 mm lg
20	70501	Locking handle-wheel height adjustment
21	S4061	Split pin M6 x 50
22	86085A	Axle welded assembly TRCD
23	86081	Axle washer Inner
24	86082	Axle washer Outer
25	9052	Spring washer M12
26	8510	Bolt M12 x 35 mm lg H.T.
27	M16512	Wheel assembly complete
	M16512/1	Wheel bearing spacer tube
	M16512/HC89	Hub cap
	9214	Wheel bearing 6206 RS
28	10403	Crop divider
29	10002	Pin
30	10001	Floating link
31	10401	Hitch frame
32	9286	Clip pin
33	10063	Lock pin — stand
34	10409	Stand — TRCD
35	10412	Pivot pin — rotor frame
36	10407	Roller
37	10402	Hitch beam
38	10411	Pivot pin — hitch beam c/w grease nipple
39	9081	Flat washer M25
40	9320	Grease nipple M10
41	10408	Pivot block
42	10410	Pivot pin — hitch frame
43	10405	Crop guide stay

Item	Part No.	Description
44	70702	Crop guide trunion
45	10404R	RH crop guide — TRCD
	10404L	LH crop guide — TRCD
46	S1065	Coach bolt and nut M10
47	9041	Spring washer M10
48	47207	Tine — crop guide
49	70753	RH five tine clamp
	70726	LH five tine clamp
50	10451	Vee belt D7670 special construction
51	9172	Nyloc nut M20
52	31	Bearing 6304 2RS
	32	Circlip — 50 mm internal
53	10037	Belt support roller c/w bearings
54	10421	Input shaft
55	22	Input shaft bearing — RLS 10Z
56	10423	Input drivehead housing c/w bearings and spacer
57	25	Spacer 47.6 mm
58	27	Key — 1¾" x 5/16" sq.
59	10426	Drive pulley 245 mm dia.
60	10448	Idler pulley adjustment crank
61	5A	Belt tensioner M20 x 150 mm lg c/w nut
62	9071	Flat washer M20
63	10430	Vee idler pulley 245 mm dia. c/w bearings etc
	31	Idler pulley bearing 6304 2RS
	32	Circlip — 50 mm internal
64	10434	Rotor pulley/spoke assy c/w bearings and spacer
	35	Rotor bearing 6210 2RS
	10436	Rotor bearing spacer tube
65	127025	Rotor ring welded assy — RH
	127035	Rotor ring welded assy — LH
66	73135	Rotor tine RH
	73130	Rotor tine LH
67	S10403	Bolt ½" UNF x 1½" lg H.T.
68	73134	Tine washer
69	S4542	Tine spring
70	86145	Nylon pivot
71	86190	Tine carrier RH
	86160	Tine carrier LH
72	9286	Lynch pin ¼"
73	S4959	Tension pin M5 x 55
74	S4950	Tension pin M8 x 55
75	86074	Lock handle
76	8512	Bolt M12 x 55
77	9151	Nyloc nut M12
NS	7859	Operators Manual — TRCD
NS	10470	Decal Set — TRCD

mounting instructions

IMPORTANT
To achieve optimum results with machinery it is necessary to ensure that mounting instructions are complied with.

1. Select a level area for setting up this machine.
2. Position the machine centrally and in line with the tractor.
3. Attach the tractor lower link arms to the linkage pins.
4. Adjust the R.H. linkage arm so the L.H. lower linkage plate is at mid travel position.
5. Lift the hydraulic linkage slightly and retract the hitch frame stand.
6. Attach the tractor top link and adjust until the lower link pins are approximately 500 mm (20") above ground level when linkage is fully lowered.
7. Adjust stay bars or sway chains to eliminate side movement.
8. Fit the PTO shaft.
   Note: Ensure the sliding tubes and guards will not fully compress when the shaft is fitted in the shortest situation.

transport

⚠ CAUTION

This machine projects to the LH side of the towing vehicle and will swing wide when cornering. Restrict the towing speed to suit road conditions.

1. **ON THE DECK OF A TRUCK OR TRAILER**
   (a) Lift both wheels to the highest adjustment position.
   (b) Extend the stand to support the hitch frame weight.
2. **ON 3 POINT LINKAGE — CARRIED**
   (a) Short distance
   Simply lift the machine on the 3 point linkage. Machine will naturally centralise into a fixed position behind the tractor.
   (b) Long distance and on Roadways.
   With the machine on the ground drive forward, hard right until the hitch frame roller is positioned at the end of its travel and beneath the transport recess.
   Lift the machine on 3 point linkage and it will locate in that narrow position. For transport, tines should be lifted to the up position manually.
3. **ON MACHINE WHEELS**
   The solid rubber wheels are not designed for high speed. Limit speed to 30 kph.

maintenance

Storage and cleanliness are key factors in the maintenance requirements of all machinery.

It is recommended that this machine:

1. Be stored under cover.
2. Be stored with the built in stand lowered to support the hitch frame weight.
3. Have all rubber based components (tyres and belts) protected from sunlight.

This machine is of simple construction and maintenance is in accord with normal engineering practices.

Assistance is offered for the following:

1. Replacement of Rotor Bearings
   (a) Remove Vee belt from the rotor pulley.
   (b) Remove the wheel axle assembly from the rotor spindle.
   (c) Remove the 1" Nyloc spindle nut.
   (d) Remove the spindle bolt
   (e) Drive the spindle through the clevis plates and rotor using a piece of tube as a thread protector.
   (f) Lift the machine frame clear of the rotor.
   (g) Drive the spindle through the rotor bearing housing using the thread protector tube as in step (e).
   (h) Knock bearings out of the rotor tube using a suitable drift (300 mm of 25 mm rod).
   (i) Fit new bearings and spacer tube if necessary.
   (j) Reassemble machine in the reverse manner ensuring the spindle alignment key is fitted.

DANGER

ROTATING PARTS

This machine is PTO driven. Ensure that machine has stopped and PTO is secured to prevent inadvertant engagements before making adjustments or carrying out maintenance.

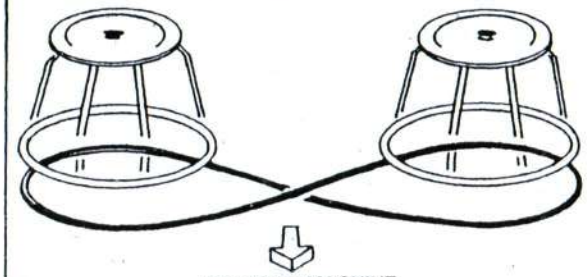
CAUTION

All hydraulically elevated equipment must be supported or lowered to the ground when servicing to prevent accidental lowering which may result in personal injury.

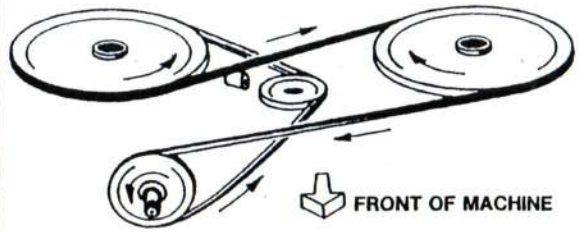
NOTE CAREFULLY:
Tighten the 1" UNF spindle nut (using a 1 m extension tube on the spanner) before tightening the ½" spindle lock bolt.

2. Fitting a new Vee Belt (see diagram)
   (a) Remove the machine front cover (5 bolts).
   (b) Slacken completely the belt tension adjuster.
   (c) Fit the new belt as per the following diagram.
   (d) Re-tension the belt and refit front cover.

FITTING A NEW VEE BELT



1. Lay vee belt on floor under machine in figure 8.



2. Lift belt up into rotor pulleys and fit around tension adjustment and drive pulleys.

operation

DANGER

ROTATING PARTS

Personal injury may be caused — ensure the area close to this machine is clear of people and obstacles before setting into operation.

DANGER

ROTATING PARTS

This machine is PTO driven. Ensure that machine has stopped and PTO is secured to prevent inadvertant engagements before making adjustments or carrying out maintenance.

CAUTION

All hydraulically elevated equipment must be supported or lowered to the ground when servicing to prevent accidental lowering which may result in personal injury.

IMPORTANT
Correct adjustment and setting of this machine is essential if satisfactory results are to be obtained.

GENERAL WORKING

Successful haymaking is largely a matter of experience, and the TRCD is provided with a range of alternative settings from which the best combination to suit prevailing conditions can be selected.

For windrowing or spreading the crop divider should be in the down, or operating position. The crop guides should be as illustrated below or when spreading may be left in the transport position.

The angle of the rotors is dependent on field conditions, etc., but generally the rotors are at a shallow angle for windrowing and a slightly steeper angle for spreading. When adjusting the rotor angle, it is essential that the road wheels are adjusted in height so that the tips of the tines at the front of the rotors are just clear of the ground. Do not set the machine harder to the ground than necessary to cleanly pick up the crop, and it is not necessary for the tines to be touching the ground to achieve this.

The TRCD has the ability to turn in either direction when operating. Sharp turns should be avoided as this may place unnecessary strain on the PTO shaft and wheel assemblies.

NEVER DRIVE FORWARD UNLESS ROTORS ARE TURNING AT THE CORRECT WORKING SPEED.

When working, examine all results carefully and adjust the road wheel height, rotor angle, forward speed and P.T.O. speed to obtain the best results according to the crop being worked, moisture content, and conditions in the field.

DO'S and DON'TS

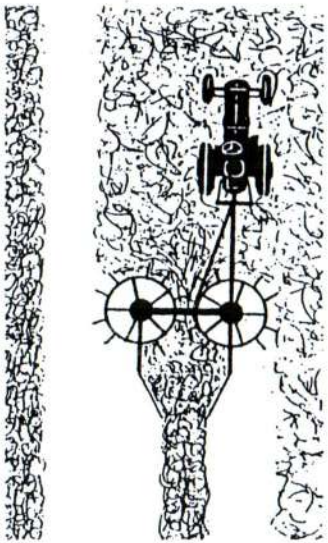
DO

(a) Store machinery under cover.
(b) Lubricate as per the lubrication chart.
(c) Operate machines within limitations of ground and crop conditions.
(d) Lift the machine in tight corners.
(e) Operate the machine with 3 point linkage fully lowered.

DON'T

(a) Tow solid rubber tyres machines above 30 kph.
(b) Drop the machine into work when travelling above normal operating speed.
(c) Drop the machine into work when travelling around a corner.
(d) Drop the machine into work when travelling in the long distance transport mode and the hitch frame roller in the transport recess.
(e) Operate the machine around very tight corners with wheels in contact with the ground.
(f) Move forward with wheels in contact with the ground and rotors not rotating.

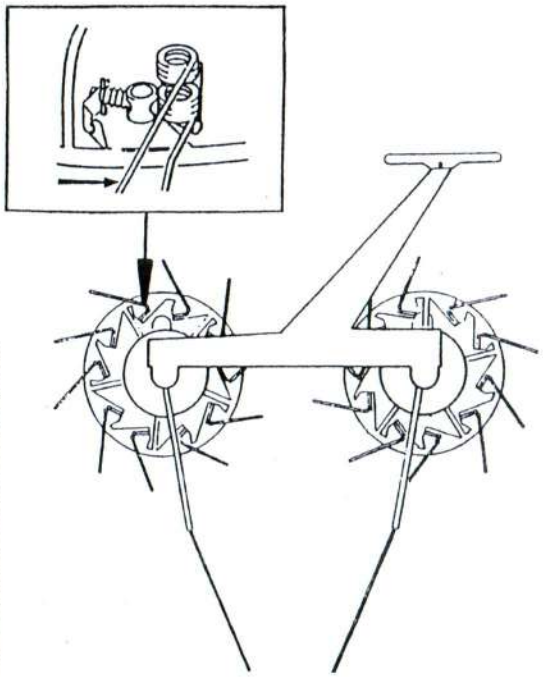
WINDROWING

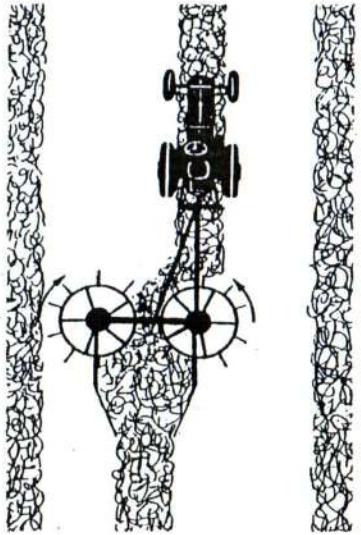


Windrowing Spread Crop

For windrowing, the tines must be set in the trailed "Row" position, and the crop guides must be set in the narrow position.

To achieve the maximum width of pick up and to prevent damage occurring to the dry crop, the rotor angle should be set as shallow as field conditions will allow.

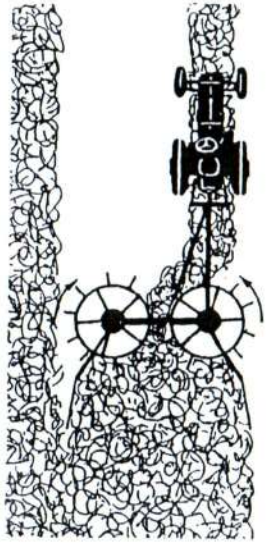




Windrow Moving

Select a P.T.O. speed of approximately 300 rpm together with a forward speed of up to 10 kph which gives a satisfactory windrow. Generally a high forward speed combined with a low P.T.O. speed will produce the best results. Too high a P.T.O. speed can cause damage to a dry crop especially large leaf crops such as clover.

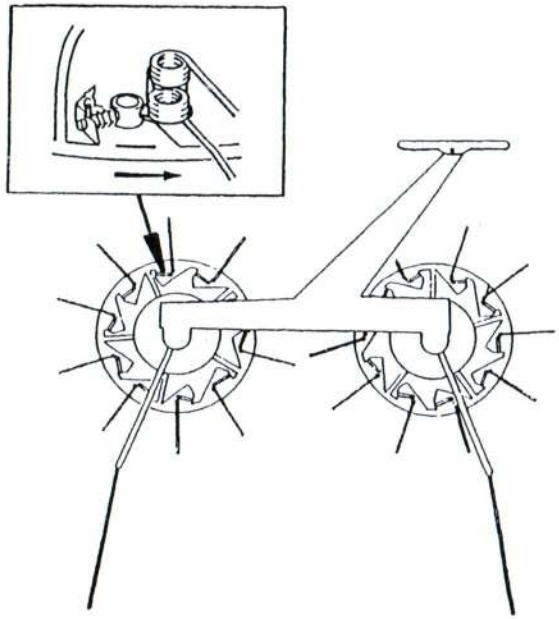
SPREADING

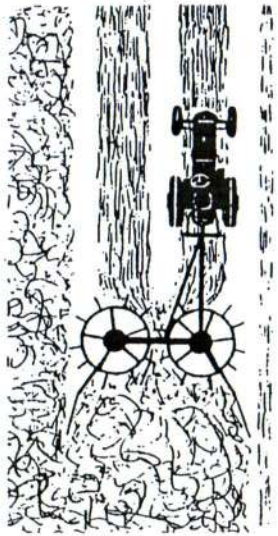


Spreading a Windrow

For spreading, the tines must be set in the leading "Spread" position and the crop guides must be in the wide position.

Forward speed and P.T.O. speed should be varied to suit the conditions of the crop. Generally a P.T.O. speed of 400 rpm will give satisfactory results. The higher the P.T.O. speed, the wider the crop is spread, a higher spread being especially useful when it is necessary to spread a windrow after rain.



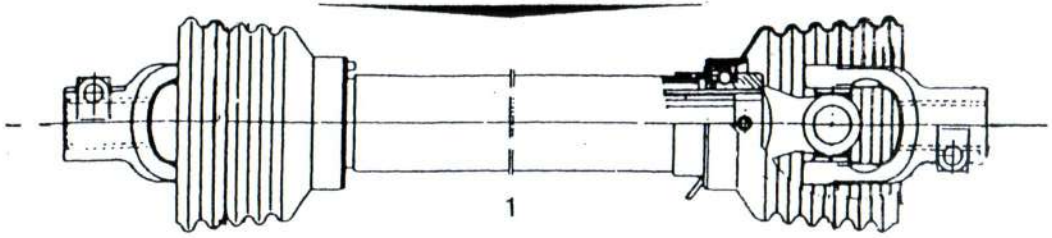


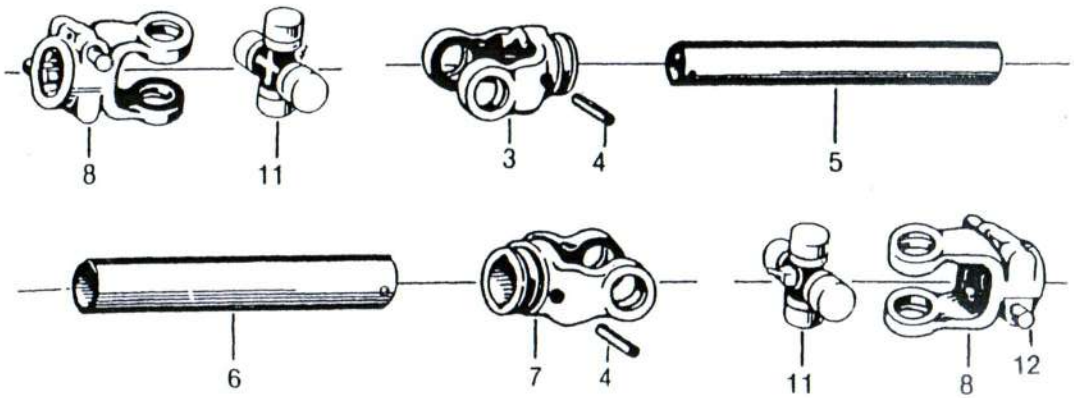
Spreading After Mowing

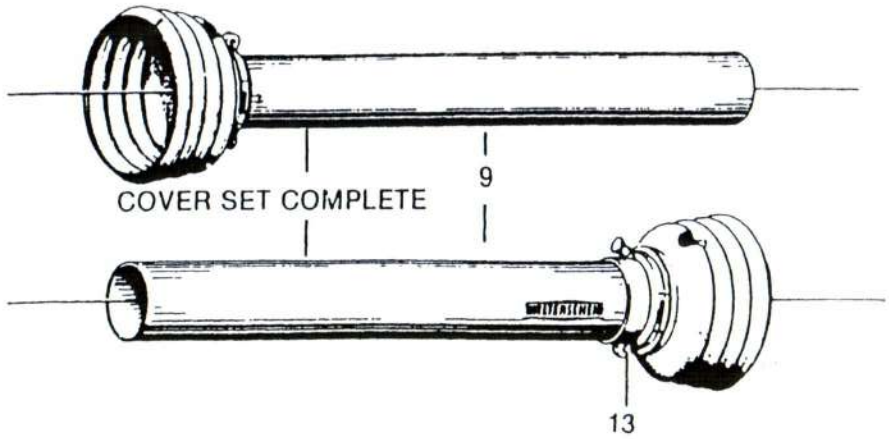
When handling light or dry crops which have been previously spread, a shallow rotor angle and a high P.T.O. speed will produce the best results.

When handling wet or heavy crops or swaths, the rotors should be set at a steeper angle with a high P.T.O. speed.

WALTERSCHEID







WALTERSCHEID

W 2300 SERIES PTO SHAFT

ITEM NO.	PART NO.	DESCRIPTION
1	W244	Walterschied drive shaft assy complete
3	W3A	Tube yoke (male) 21-11-00
4	W4A	Tension pin 61-05-04
5	W5A-990	Lemon tube (male max. dia. 40 mm) 75-11-990
6	W6A-990	Lemon tube (female max. dia. 48 mm) 75-15-990
8	W7A	Tube yoke (female) 21-12-00
9	W9A-1000	Cover set — complete SC15 82-160 x 1000 (338318)
11	W11A	Universal joint kit 21-00-00
12	W12A	Quick release pin set 65-01-00 (pin length 53 mm)
13	W13A	Cover bearing — nylon 82-83-06